**Python Programming Challenge**

Problem 1.

A newly opened multinational brand has decided to base their company logo on the three most common characters in the company name. They are now trying out various combinations of company names and logos based on this condition. Given a string , which is the company name in lowercase letters, your task is to find the top three most common characters in the string.

* Print the three most common characters along with their occurrence count.
* Sort in descending order of occurrence count.
* If the occurrence count is the same, sort the characters in alphabetical order.

For example, according to the conditions described above,

 would have it's logo with the letters .

**Input Format**

A single line of input containing the string .

**Constraints**

**Output Format**

Print the three most common characters along with their occurrence count each on a separate line.  
Sort output in descending order of occurrence count.  
If the occurrence count is the same, sort the characters in alphabetical order.

**Sample Input 0**

aabbbccde

**Sample Output 0**

b 3

a 2

c 2

**Explanation 0**

Here, *b* occurs 3 times. It is printed first.  
Both *a* and *c* occur 2 times. So, *a* is printed in the second line and *c* in the third line because *a* comes before *c* in the alphabet.

**Note**: The string  has at least 3 distinct characters.

**Problem 2.**

Jadoo, the space alien has challenged Koba to a friendly duel. He asks Koba to write a program to print out all numbers from 70 to 80. Knowing perfectly well how easy the problem is, the Jadoo adds his own twist to the challenge. He asks Koba to write the program without using a single number in his program and also restricts the character limit to 100.

Problem 3.

Jadoo, the Space Alien has befriended Koba upon landing on Earth. Since then, he wishes Koba to be more like him. In order to do so he decides to slowly transcribe Koba's DNA into RNA. But he has to write a very short code in order to do the transcription so as not to make Koba aware of the change.

The four nucleotides found in DNA are adenine (A), cytosine (C), guanine (G) and thymine (T).

The four nucleotides found in RNA are adenine (A), cytosine (C), guanine (G) and uracil (U).

Given a DNA strand, its transcribed RNA strand is formed by replacing each nucleotide with its complement:

* G --> C
* C --> G
* T --> A
* A --> U

Input: The input will always be a string of characters.

Output: The output should always be a string of characters. In the case of invalid input, you should output Invalid Input as a string.

            Rules: Your code should not consist of any numerical characters             (0, 1, 2, 3, 4, 5, 6, 7, 8, 9) and the length of your code should be             <= 103. If your code consists of numerical characters, then your             score is zero irrespectuve of your code length or testcases             satisfied. If your code is devoid of numerical characters and is of             length > 103 then you score 50%.

SAMPLE INPUT

C

SAMPLE OUTPUT

G

Problem 4.

Jadoo hates numbers, but he requires to print a special number "420" to recharge the equation of life. He asks your help to print the number but Since he hates numbers, he asks you to write the program such that there would not be any number in the code.

**Problem 5.**

Raghav is currently watching Netflix. He is feeling thrilled after watching Seasons 1, 2 and 3 of 13 Reasons Why, and is desperately waiting for release of Season 4. But the makers of the show are in no mood to release the next season anytime soon.

The makers of 13 Reasons Why give Raghav a challenge to solve. If he solves this challenge, then they will give exclusive copy of Season 4 to him.

But Raghav is feeling lazy. Can you help him solve this challenge?

Given 3 integers A, B, C. Do the following steps-

Swap A and B.

Multiply A by C.

Add C to B.

Output new values of A and B.

SAMPLE INPUT

13 5 2

SAMPLE OUTPUT

10 15

Explanation

Steps-

1. After swap, A = 5 and B = 13.
2. A is multiplied by 2. So, A = 10.
3. 2 is added to B. So, B = 15.